THE MINERAL INDUSTRY OF SOUTH CAROLINA

This chapter has been prepared under a Memorandum of Understanding between the U.S. Geological Survey and the South Carolina Geological Survey for collecting information on all nonfuel minerals.

In 1999, the preliminary estimated value[1] of nonfuel mineral production for South Carolina was $574 million, according to the U.S. Geological Survey (USGS). This was a 2% increase from that of 1998,[2] and followed a 1% decrease in 1998 from that of 1997. The State remained 24th among the 50 States in total nonfuel mineral production value, of which South Carolina accounted for nearly 1.5% of the U.S. total.

The State's increase in value was led by a $13 million increase in the value of crushed stone and a $6 million increase in portland cement. Smaller yet significant increases also occurred in construction sand and gravel, kaolin, and masonry cement (listings in descending order of change) (table 1). The largest decrease was a $9.3 million drop in the value of industrial sand and gravel, followed by smaller drops in the values of gold and vermiculite; common clays was also down, slightly. In 1998, the values of portland and masonry cements, construction sand and gravel increased significantly, while industrial sand and gravel, common clays, and vermiculite experienced smaller gains. These increases were more than balanced out by the decreased values of crushed stone, gold (down more than $11 million), and kaolin, resulting in a net decrease for the year (table 1).

Based upon USGS estimates of the quantities produced in the 50 States in 1999, South Carolina remained 1st of 2 States that produce vermiculite, 2d in kaolin, 3d in fire clays, 4th in masonry cement and mica, 6th in common clays, and 10th in portland cement and gold (listings in descending order of value). Additionally, significant quantities of crushed stone and industrial sand and gravel were produced in South Carolina. Primary aluminum and raw steel also were produced in the State but from raw materials that were acquired from other domestic and foreign sources. South Carolina remained seventh of 14 States in the production of primary aluminum in 1999.

[1]The terms "nonfuel mineral production" and related "values" encompass variations in meaning, depending upon the minerals or mineral products. Production may be measured by mine shipments, mineral commodity sales, or marketable production (including consumption by producers) as is applicable to the individual mineral commodity.

All 1999 USGS mineral production data published in this chapter are preliminary estimates as of May 2000, and are expected to change. For some mineral commodities, such as, construction sand and gravel, crushed stone, and portland cement, estimates are updated periodically. To obtain the most current information, please contact the appropriate USGS mineral commodity specialist. A telephone listing for the specialists may be retrieved over the Internet at URL http://minerals.usgs.gov/minerals/contacts/comdir.html, by using MINES FaxBack at (703) 648-4999 from a fax machine with a touch-tone handset (request Document #1000 for a telephone listing of all mineral commodity specialists), or by calling USGS information at (703) 648-4000 for the specialist's name and number. All Mineral Industry Surveys–mineral commodity, State, and country–also may be retrieved over the Internet at URL http://minerals.usgs.gov/minerals; facsimile copies may be obtained from MINES FaxBack.

[2]Values, percentage calculations, and rankings for 1998 may vary from the Minerals Yearbook, Area Reports: Domestic 1998, Volume II, owing to the revision of preliminary 1998 to final 1998 data. Data for 1999 are preliminary and are expected to change; related rankings may also be subject to change.

NONFUEL RAW MINERAL PRODUCTION IN SOUTH CAROLINA 1/ 2/

(Thousand metric tons and thousand dollars)

Mineral	1997		1998		1999 p/	
	Quantity	Value	Quantity	Value	Quantity	Value
Cement:						
Masonry	334	35,500 e/	374	43,700 e/	384	45,000 e/
Portland	2,520	194,000 e/	2,640	210,000 e/	2,710	216,000 e/
Clays:						
Common	1,080	2,850	1,220	3,950	1,220	3,850
Fire	--	--	36	38	36	38
Kaolin	447	29,000	395	22,000	406	23,400
Gemstones	NA	1	NA	1	NA	1
Sand and gravel:						
Construction	8,130	30,400	9,690	35,900	10,100	38,300
Industrial	770	19,300	881	20,700	692	11,400
Stone:						
Crushed	25,900	202,000	28,000	182,000	29,200	195,000
Dimension	W	W	12,900	1,150	11,700	1,150
Combined values of gold, lime (1999), manganiferous ore (1997), mica (crude), silver, stone [dimension granite (1997)], vermiculite	XX	54,200	XX	42,600	XX	40,500
Total	XX	567,000	XX	562,000	XX	574,000

e/ Estimated. p/ Preliminary. NA Not available. W Withheld to avoid disclosing company proprietary data; value included with "Combined values" data. XX Not applicable. -- Zero.

1/ Production as measured by mine shipments, sales, or marketable production (including consumption by producers).

2/ Data are rounded to no more than three significant digits; may not add to totals shown.

TABLE 2
SOUTH CAROLINA: CRUSHED STONE SOLD OR USED, BY KIND 1/

Kind	1997 Number of quarries	1997 Quantity (thousand metric tons)	1997 Value (thousands)	1997 Unit value	1998 Number of quarries	1998 Quantity (thousand metric tons)	1998 Value (thousands)	1998 Unit value
Limestone	1 r/	3,100 r/	$30,400 r/	$9.80 r/	8	3,660	$26,200	$7.17
Granite	25	19,000	157,000	8.27	26	20,400	137,000	6.71
Marble	1	W	W	W	1	W	W	W
Calcareous marl	3 r/	W	W	W	6	W	W	W
Total or average	XX	25,900	202,000	7.79	XX	28,000	182,000	6.50

r/ Revised. W Withheld to avoid disclosing company proprietary data; included in "Total." XX Not applicable.
1/ Data are rounded to no more than three significant digits; may not add to totals shown.

TABLE 3
SOUTH CAROLINA: CRUSHED STONE SOLD OR USED BY PRODUCERS
IN 1998, BY USE 1/ 2/

Use	Quantity (thousand metric tons)	Value (thousands)	Unit value
Coarse aggregate (+1 1/2 inch):			
Macadam	38	$294	$7.74
Riprap and jetty stone	180	1,820	10.12
Filter stone	W	W	9.65
Other coarse aggregate	1,770	6,670	3.77
Coarse aggregate, graded:			
Concrete aggregate, coarse	1,260	11,000	8.68
Bituminous aggregate, coarse	W	W	8.10
Bituminous surface-treatment aggregate	W	W	W
Railroad ballast	W	W	8.07
Other graded coarse aggregate	4,840	33,300	6.87
Fine aggregate (-3/8 inch):			
Stone sand, concrete	W	W	5.87
Stone sand, bituminous mix or seal	W	W	6.79
Screening, undesignated	360	3,210	8.92
Other fine aggregate	1,420	7,750	5.46
Coarse and fine aggregates:			
Graded road base or subbase	868	7,150	8.24
Crusher run or fill or waste	W	W	5.78
Other coarse and fine aggregates	2,160	12,400	5.74
Chemical and metallurgical: Cement manufacture	(3/)	(3/)	4.09
Special: Roofing granules	(3/)	(3/)	5.77
Unspecified: 4/			
Actual	11,500	82,400	7.16
Estimated	383	2,750	7.17
Total or average	28,000	182,000	6.50

W Withheld to avoid disclosing company proprietary data; included with "Other."
1/ Data are rounded to three significant digits, except unit value; may not add to totals shown.
2/ Includes calcareous marl, granite, limestone, and marble.
3/ Withheld to avoid disclosing company proprietary data; included in "Total."
4/ Reported and estimated production without a breakdown by end use.

TABLE 4
SOUTH CAROLINA: CRUSHED STONE SOLD OR USED BY PRODUCERS IN 1998,
BY USE AND DISTRICT 1/

(Thousand metric tons and thousand dollars)

Use	District 1		District 2		District 3	
	Quantity	Value	Quantity	Value	Quantity	Value
Construction aggregates:						
Coarse aggregate (+1 1/2 inch) 2/	659	4,100	W	W	W	W
Coarse aggregate, graded 3/	3,670	28,400	W	W	W	W
Fine aggregate (-3/8 inch) 4/	W	W	W	W	W	W
Coarse and fine aggregate 5/	W	W	--	--	W	W
Chemical and metallurgical 6/	--	--	W	W	W	W
Unspecified: 7/						
Actual	3,380	24,200	3,740	26,800	4,390	31,400
Estimated	136	975	123	884	124	889
Total	11,500	78,900	8,950	48,000	7,500	54,700

W Withheld to avoid disclosing company proprietary data; included in "Total." -- Zero.
1/ Data are rounded to no more than three significant digits; may not add to totals shown.
2/ Includes filter stone, macadam, riprap and jetty stone, and other coarse aggregate.
3/ Includes bituminous aggregate (coarse), bituminous surface-treatment aggregate, concrete aggregate (coarse), railroad ballast, and other graded coarse aggregate.
4/ Includes stone sand (bituminous mix or seal), stone sand (concrete), screening (undesignated), and other fine aggregates.
5/ Includes crusher run (select material or fill), graded road base or subbase, roofing granules, and other coarse and fine aggregates.
6/ Includes cement manufacture.
7/ Reported and estimated production without a breakdown by end use.

TABLE 5
SOUTH CAROLINA: CONSTRUCTION SAND AND GRAVEL SOLD OR USED IN 1998,
BY MAJOR USE CATEGORY 1/

Use	Quantity (thousand metric tons)	Value (thousands)	Unit value
Concrete aggregate	4,100	$14,800	$3.61
Plaster and gunite sands	54	360	6.67
Concrete products (blocks, bricks, pipe, decorative, etc.)	265	736	2.78
Asphaltic concrete aggregates and other bituminous mixtures	102	317	3.11
Road base and coverings 2/	73	267	3.66
Fill	1,080	1,640	1.53
Snow and ice control	7	24	3.43
Other miscellaneous uses	6	26	4.33
Unspecified: 3/			
Actual	2,380	11,200	4.71
Estimated	1,620	6,470	3.99
Total or average	9,690	35,900	3.70

1/ Data are rounded to no more than three significant digits; may not add to totals shown.
2/ Includes road and other stabilization (cement).
3/ Reported and estimated production without a breakdown by end use.

TABLE 6
SOUTH CAROLINA: CONSTRUCTION SAND AND GRAVEL SOLD OR USED IN 1998,
BY USE AND DISTRICT 1/

(Thousand metric tons and thousand dollars)

Use	District 1		District 2		District 3	
	Quantity	Value	Quantity	Value	Quantity	Value
Concrete aggregate and concrete products 2/	W	W	W	W	2,940	11,100
Asphaltic concrete and road base materials 3/	51	200	W	W	W	W
Fill	36	149	132	219	906	1,270
Other miscellaneous uses 4/	W	W	--	--	W	W
Unspecified 5/	103	594	1,050	4,950	2,850	12,100
Total	445	1,950	2,480	9,200	6,770	24,700

W Withheld to avoid disclosing company proprietary data; included in "Total." -- Zero.
1/ Data are rounded to no more than three significant digits; may not add to totals shown.
2/ Includes plaster and gunite sands.
3/ Includes road and other stabilization (cement).
4/ Includes snow and ice control.
5/ Reported production without a breakdown by end use.